

Date: Wed, 22 Dec 93 09:05:43 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #1496
To: Info-Hams

Info-Hams Digest Wed, 22 Dec 93 Volume 93 : Issue 1496

Today's Topics:

 ARLB116 Pick your call sign
 DEP May Impose Fees On YOU!
 Frequent 2m Frequencies needed
 Kraco SSB CB Information Please
 Morse Code blues
 Portable Repeater Help
 Rechargable Alkaline Batteries
 Surplus Elec. store in Cleveland
 Where are all the young enthusiasts? (2 msgs)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 15 Dec 1993 12:22:50 GMT
From: netcomsv!netcom.com!marcbg@decwrl.dec.com
Subject: ARLB116 Pick your call sign
To: info-hams@ucsd.edu

SB QST @ ARL \$ARLB116
ARLB116 Pick your call sign

ZCZC AG58
QST de W1AW
ARRL Bulletin 116 ARLB116

Date: 22 Dec 93 15:07:56 GMT
From: dziuxsolim.rutgers.edu!pilot.njin.net!magliaco@uunet.uu.net
Subject: DEP May Impose Fees On YOU!
To: info-hams@ucsd.edu

SB NJHAM @ ALLUSA \$DEPE1
DEP May Impose Fees on YOU!

The Department of Environmental Protection and Energy in New Jersey is proposing a fee pertaining to owners of RF generating devices. In summary, the proposed rule will require the owners of sources of radio frequency and microwave radiation between the frequencies of 300 KHz and 100 GHz that have the potential of exposing either workers or the general public to radiation levels in excess of the regulatory limits specified in N.J.A.C. 7:28-42 Radio Frequency Radiation and all owners of radio frequency and microwave heaters, sealers and industrial ovens to register those sources with the Department within 60 calendar days after the effective date of this rule.

The owners of all units that are subject to this rule shall be assessed an initial registration fee and will be required to provide technical information to the Department. After the first year of the program, the owners of registered units will be assessed an annual renewal fee. The amounts of the proposed fee are based on the services to be performed by the Department. A copy of the Department's calculations of the initial and annual renewal fee is available for inspection by the public at the Bureau of Environment Radiation, 729 Alexander Road, Princeton, New Jersey. The Department requests that any interested person telephone to make an appointment to review the documents.

A public hearing to discuss the rule will be held on January 11, 1994, beginning at 9:30 AM, in the Department's Public Hearing Room, 401 East State Street, Trenton, New Jersey. The Department will accept comments on the proposed regulations until January 20, 1994. Comments should be addressed to Janis E. Hoagland, Esq., Administrative Practice Officer, New Jersey Department of Environmental Protection and Energy, Office of Legal Affairs, CN 402, Trenton, New Jersey, 08625-0402. If you have any questions regarding the applicability of this rule to your organization, you may contact Ms. Deborah Wenke with Radiation Protection Programs at 609-987-2101.

Radio Frequency Protection Guides (RFPG) for whole body exposure

Frequency	Maximum Allowed	Maximum Allowed	Equivalent
	Mean Squared	Mean Squared	Plane Wave
	Electric Field	Magnetic Field	Power Density

Range	Strength (V/m) ²	Strength (A/m) ²	mW/cm ²
300 KHz-3 MHz	400,000	2.5	100
3 MHz - 30 MHz	4,000 (900/f)	0.025 (900/f)	900/f
30 MHz-300 MHz	4,000	0.025	1.0
300 MHz-1.5 GHz	4,000 (f/300)	0.025 (f/300)	f/300
1.5 GHz-100 GHz	20,000	0.125	5.0

Notes:

- 1) f - frequency (MHz)
- 2) For near field exposure, both the mean squared electric and magnetic strengths shall be determined.
- 3) For frequencies below 300 MHz, both the mean squared electric and magnetic field strengths shall be determined.
- 4) At frequencies above 300 MHz, either the mean squared electric or magnetic field strengths shall be determined.
- 5) The applicable RFPG shall be averaged over any 0.1 hour interval.
- 6) Measurement to determine adherence to the RFPG shall be made at distances 5 cm or greater from any object.
- 7) Where electromagnetic fields are present at more than one frequency or for broadband fields, the fraction of the RFPG incurred within each frequency interval shall be determined and the sum of all such fractions shall not exceed unity.

Although initial and annual registration fees are not outlined for Amateur Stations, Amateur Radio is mentioned in several sections of the DEPE proposal as being a significant source of radio frequency radiation that poses health risks to the general public. As a reference, the median fee for commercial users will be approximately \$500 per antenna if this proposal is passed.

The proposed new rules will provide the Department with the financial and informational resources it needs to enforce the radio frequency radiation protection provisions of N.J.A.C. 7:28-42 and are therefore expected to have a positive social impact. The more familiar applications of radio frequency radiation are AM and FM radio, television, amateur radio, microwave ovens, radar, microwave point-to-point and ground-to-satellite telecommunications links, and other communications services. Radio frequency and microwave sources are also widely used in industrial heating and sealing operations. The steady increase in the number of these sources, coupled with a better understanding of their biological effects on human beings, has heightened concerns in the scientific community and in the public about the potential adverse health effects from exposure to this type of radiation.

Nonionizing radiation sources have steadily increased in number and their

uses have so diversified that a general increase in radiation levels in the environment has occurred. Extensive radio frequency radiation measurements made by the EPA have shown that the sources most likely to produce the highest environmental levels are television and radio broadcast stations. Other significant, but less intense, sources of radio frequency radiation are transmitting satellite earth station antennas, microwave point-to-point communications antennas, cellular telephone cell-site antenna base stations, amateur radio stations, navigational aids and radar. Radio frequency heaters and sealers are generally located indoors and it is not currently known how intense the radiation emitted by these is outside the buildings in which they are housed. Because the new proposed rules will support a staff to ensure that all of the aforementioned sources are in compliance with the radiation limits set forth in N.J.A.C. 7:28-42, the new rule will have positive impact of reducing the levels of nonionizing radiation in the environment.

I suggest that comments be directed directly to the Department of Environmental Protection and Energy of New Jersey as outlined above.

Those outside New Jersey aren't out of the clear on this issue because if this proposal passes, it could be justification for a national ruling on radio frequency radiation that could KILL Amateur Radio for good!

73, de John, KD2BD @ N2KZH.NJ.USA.NA

/EX

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John A. Magliacane, KD2BD * /\ * Voice : 1-908-224-2948
Advanced Technology Center |/\| Packet : KD2BD @ N2KZH.NJ.USA.NA
Brookdale Community College |/\| Internet: kd2bd@ka2qhd.ocpt.ccur.com
Lincroft, NJ 07738 * \/\ * Morse : -.- -.. ..--- -..

Date: Mon, 20 Dec 1993 13:59:51 -0700
From: orca.es.com!cnn.sim.es.com!msanders.sim.es.com!user@uunet.uu.net
Subject: Frequent 2m Frequencies needed
To: info-hams@ucsd.edu

In article <1993Dec19.144850.5669@newstand.syr.edu>,
felliccia@mothra.syr.edu (Nicholas J Felliccia) wrote:

>
> WHAT ARE THE MOST USED 2M FREQUENCIES
>
>
> Hi there everybody.

>
> I just put a New 2M mobile set up in my Car a Yaesu FT 411.
>
> I am planning to take a trip across several metropolitan regions
> and really don't want to be distracted from band scanning by getting
> hung up on intermods and carriers and so forth, so I was wondering;
>
> A LONG time ago i saw posted on here a list of the most used 2m
> repeater frequencies in the country; Maybe it wasn't on here
> or maybe it was on QST. Wherever I remeber it I am sure that such
> a list exists out there and I would like to know if anyone
> could send it to me.

Hey Nick!

For \$6.95 you can get the entire US 2M repeater directory from ARRL. I got mine in the local radio store here. Then you would never be without a guide to wherever you may be going.

Milt

--

=====

Opinions, thoughts, &cetera are my own (when I can remember them).

"He flies the sky	KB7MSF
Like an Eagle in the eye	UTAH
of a hurricane that's abandoned."	

America

Date: Wed, 22 Dec 93 02:12:29 GMT
From: netcomsv!netcomsv!bongo!skyld!jangus@decwrl.dec.com
Subject: Kraco SSB CB Information Please
To: info-hams@ucsd.edu

And in a followup to the original poster of the help request, I've sent this simple message (after a couple of get to know ya's first)

> The model number is KB-2355.
>
> It's a 23-channel SSB base station CB.
>
> I have an Antron 99 and ground plane, the match is 1:1.
>

> I'd just like to peak it up to the legal maximum. I don't
> want to run heat, but I want to get every little ounce I
> can under the four watt limit. Thanks.
>

Has anyone explained power ratios to you?

Here's a tech note (from me to you): Power ratios (or dB as they're called).

5 watts RF output power is the maximum legal power output as measured into a 50 ohm load. Decibels or dB are a measure of ratio. If you increase your power from 5 watts to 10 watts the ratio is 2. In dB the number is 3. This is derived with logarithmic methods.

$$10 * \log(10) \text{ power(a)/power(b)}$$

If you look at your S-meter on the radio, it is calibrated in S-units from 1 to 9 and above 9 in 10 dB increments. Each S-unit is typically (or should be) 6 dB or the equivalent of a 4 times increase in signal power.

If for example, you are only S-7 on your buddy's radio, to get to S-8 (and this assumes your radio is putting out 4 watts now) you would need to increase your output to 16 watts. And again, from 16 to 64 to get to S-9. A 10 dB increase is equivalent to a 10 times power increase, so then (starting again at 4 watts and S-7) to get to 10 dB over S-9 would require a total increase from 4 watts to 640 watts.

The quickest and easiest way to increase the effective radiated power (E.R.P.) of your station is to see to it that the power you do put out goes in a direction that makes a difference. Obviously with a vertical antenna, most of the power goes everywhere else but to the person you wish to talk with. A simple dipole with splits the power evenly from towards and away from your target. More elaborate antennas (Heh heh, Moon trackers etc) are just better at directing all (well actually most) of the power in a single direction.

Now, back to your radio. Assume that it puts out 4 watts. If you peak things up to where it puts out the legal 5 watt max, you have about 1 dB of effective improvement. (Note your radio would have to be down to 1.25 watts to be a single S-unit below what 5 watts would result in.)

Still want to poke around in the radio? Do you have the service manual for it? Although most of these radios are generic once you open them up, I like to have a road map that matches the radio before I start twisting

knobs and things.

Have a nice evening...
Jeff

P.S. I'm posting this followup to the rec.radio.amateur newsgroup as a sample of cooperation instead of the usual elitism shown towards others.

Amateur: WA6FWI@WA6FWI.#SOCA.CA.USA.NA		"It is difficult to imagine our
Internet: jangus@skyld.tele.com		universe run by a single omni-
US Mail: PO Box 4425 Carson, CA 90749		potent god. I see it more as a
Phone: 1 (310) 324-6080		badly run corporation."

Date: 22 Dec 93 16:05:03 GMT
From: news-mail-gateway@ucsd.edu
Subject: Morse Code blues
To: info-hams@ucsd.edu

Text item: Text_1

>CQ CQ CQ DE N0YAX N0YAX N0YAX QRS K Come on guys, help out us new
>ppl struggling with the code!

For me, 5 wpm is fun and 15 wpm is reserved for contests. I make contact with Novices who speed up when they hear my call. I often ask them to QRS.

For people who refuse to slow down, I sometimes respond to their rudeness by coming back with a computer generated 40 wpm to show them what it feels like. Funny thing, hardly any of them come back after that.

See you on 40m at 5 wpm... Cecil, kg7bk@indirect.com

Date: Mon, 20 Dec 1993 20:39:08 GMT
From: spsgate!mogate!newsgate!nuntius@uunet.uu.net
Subject: Portable Repeater Help
To: info-hams@ucsd.edu

A friend and I are having a wonderful time playing with ham radio projects. We started with a couple of antenna projects and we are moving up into the bigger (read expensive) projects. We are currently building a dual band 2mtr/70cm amp for mobile (or base) operation. We allowed

our imagination to run some and thought having a portable repeater might be over some use.

So we have most all the parts required to fab a repeater, and would love any constructive idea's to help us along. One big part we lack is the duplexer. If anyone has plans for one we would love to look them over. If anyone has a set of cavities, we would entertain the thought of purchasing them.

The current plan is to put the amps in a 20mm ammo can and the duplexers and control circuitry in another ammo can and interconnect them to make a repeater. With luck we will have room for the 12volt deep cycle rv battery!

We have read through the ARRL handbook and the antenna handbook, but still have some questions on the best approach. So if this is a project you worked your way through please drop us a note.

Thanks
Rick Aldom
ayka60@email.sps.mot.com

Date: 20 Dec 93 16:16:47
From: idacrd.ccr-p.ida.org!idacrd!n4hy@uunet.uu.net
Subject: Rechargable Alkaline Batteries
To: info-hams@ucsd.edu

They are just terrific. I have not had one yet that did not exceed their very conservatively rated capacity. They last about twice as long as a NICAD. The batteries never get hot in the recharger. On my CD, a pair of AA's lasts about 8 hours. I am very pleased with them so far.

Bob

--
Robert W. McGwier | n4hy@ccr-p.ida.org Interests: ham radio,
Center for Communications Research | scouts, astronomy, golf (o yea, & math!)
Princeton, N.J. 08520 | ASM Troop 5700, ACM Pack 53 Hightstown
(609)-279-6240(v) (609)-924-3061(f) | I used to be a Buffalo . . . NE III-120

Date: 22 Dec 93 14:36:29 GMT
From: news-mail-gateway@ucsd.edu
Subject: Surplus Elec. store in Cleveland
To: info-hams@ucsd.edu

I recall several years ago when I was in Cleveland OH that there was an electronics surplus type place in downtown Cleveland. Was that

possibly Western electronics (or something like that) ? Does anyone out there know about this place or the correct name and location ?

Seth KC2WE

Date: 22 Dec 93 15:22:03 GMT
From: ogicse!uwm.edu!cs.utexas.edu!howland.reston.ans.net!vixen.cso.uiuc.edu!
usenet@network.ucsd.edu
Subject: Where are all the young enthusiasts?
To: info-hams@ucsd.edu

On Wed, 22 Dec 1993 06:07:22 GMT, John Reed wrote:

>.....
>MMMy club as yet to give me the respect that I deserve as a member and as a
>person..everytime I open my mouth at a meeting, I'm met with a "That's nice
>son" attitude and a motion to shut up... I'm cut off in mid sentence, etc...
>
>I don't if other clubs are like that with their new young hams, but mine is
>bad...
>
>Some of these old phartes need to learn that us new hams have plenty to offer
>and in no way are we threatening to the establishment... I've done plenty for

<much deleted>

A data point.

They are out there, but something or someone has to draw their interest. With the advances in electronics and communications, the fascination of the crystal radio isn't the attraction it once was. I first became acquainted with ham radio when a fellow student set up his rig at a research site we were working at one summer (now 20 years ago). He strung a dipole antenna between two lighting rods, and he was on the air. We had a great time just watching and listening to him work the bands (voice). But due to -many- other activities and interests, it was never something I pursued (like I really need another hobby....).

It looks like I, and six to eight 11 and 12 year olds, may soon have one, though. Tonight we take the written Novice exam, on our way to the Tech No-code. My son's scoutmaster holds a General ticket, and for several years (it could be *many* - he's been scoutmaster of this troop for 25) he has been offering ham classes to any interested scouts. He piqued my interest again when he worked the "Jamboree on the Air" from our campsite in the Shawnee National Forest in southern Illinois. So when my son (11) said he wanted to take the ham classes, I thought "here's my opportunity", and it's a great father/son thing to boot. I asked if I

could sit in (the more the merrier - I'm not the first father to do it). So we have been meeting once a week since October, going through the question pool. The boys have been able to see and feel real equipment, listen to transmission, and see packet radio in operation. Most will probably not go on to learn code, because the idea of immediate communication on 2m is more attractive right now. But so what? They all will have learned some basic electric theory and have some understanding of antennas, radios, and radio transmissions. The opportunity to learn code will be available to them if they want it. Some will go much further.

John's type of experience is what discourages young enthusiasts. The older hams with "attitude" have to realize that these aren't the "good old days" any more. Electronics and communications capabilities have improved exponentially in the past 30 years. 11 and 12 year old kids today know as much about computers as the older hams once knew about radios when they were that age.

My son's troop now has numerous licensed hams, although I don't know how many are active. I do know that several have joined the local amateur club and try to be active in that. And, it's all due to one "older" ham taking the time and effort to interest some kids in the hobby.

So, if everything goes well, we will all pass our Element 2 exam tonight. Wish us luck!

Date: Mon, 20 Dec 1993 13:37:11 -0700
From: orca.es.com!cnn.sim.es.com!msanders.sim.es.com!user@uunet.uu.net
Subject: Where are all the young enthusiasts?
To: info-hams@ucsd.edu

In article <drew.95.0@trl.oz.au>, drew@trl.oz.au (Drew Diamond) wrote:

> Is there no longer any "magic" in radio for young persons? At my radio
> club, I see the same bunch of (mostly) grey and balding heads- rare to see a
> young, enthusiastic person attend a meeting. And on the air- same bunch of
> grey beards- not many young voices.
>
[snip some]
>
> 73, Kind Regards,
>
> Drew, VK3XU. Telecom Australia Research Laboratories.

Yea and Hooray! My area has loads of young voices, even a couple with advanced and extra licenses.

I can hardly keep track of my HT because my 12 year old covets it and even

hides it in his room at night (KB7ZIU). My 22 year old (KB7ZIV) is not quite so ambitious. Come on Christmas! so I can let them tear the wrappings off their Alinco DJ-180T's!!!! I want my radio back. My 12 yr old uses the packet station like he was born under it, talks with oldsters and youngsters alike, and is now studying his code. Heaven help my HF rig when he gets his code!! I am looking for a backup rig I can put in his room and another HF antenna for the roof!

We have lots of other 8-16 year olds that ride the airwaves and not only get a kick out of talking to each other, but all the older hams in the area, as well as HF DX in South America etc. KB7WIG is working on his general class, KB7WCV talks to us occasionally during our commute and also has his tech+ and a TS-520. KB7WYE got his license at 13 and is an Eagle Scout, talks to both me and my son when his mom is driving him to school. An 8 year old girl passed no code tech at the last testing session ---- they are there guys, at least here in Utah, and we are loving it. A lot of these hams have dads who are also hams. And there are a new breed of single women as well as spouses who have gotten their licenses in the three valleys here in the west.

We welcome the new voices and congratulate them on licenses and upgrades, and talk to them whenever we get the chance. Saturday night, one club staged a North Pole "link" with Santa Clause, and used a net control to have kids of hams talk to Santa over the 2M repeater. Think those kids will remember ham radio and a chat with Santa?

My 12 year old is putting me to shame: he registered with ARES and checks into their net every Tues night (past his bedtime by the way), but I kinda look the other way.

These kids are smart, pick up professional operating procedures, and often sound like seasoned hams, putting some of the old timers to shame who have picked up some poor radio habits. Don't be afraid to let the kid next door, or your own, talk on your radio. It seems to be habit forming. Don't forget to lock the gear up though, kids have a tendency to use it when they want, licensed or not.

Cheer up Drew, and all you others. Encourage the youth, and you will get more than you want. Forgot to mention that many scout troops have a radio night, and arrange to have the scouts listen and talk on one of the repeaters as well as HF. Just takes some organization and some hams who care.

Milt

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=====

Opinions, thoughts, &cetera are my own (when I can remember them).

"He flies the sky
Like an Eagle in the eye
of a hurricane that's abandoned."

KB7MSF
UTAH

America

Date: (null)
From: (null)

--
Marc Grant
marcbg@netcom.com

Date: 22 Dec 93 15:50:39 GMT
From: mnemosyne.cs.du.edu!nyx10!lkollar@uunet.uu.net
To: info-hams@ucsd.edu

References <2f7ujfINNdSr@nighthawk.ksu.ksu.edu>, <2f80r0\$2de@ornews.intel.com>,
<1993Dec22.025635.9347@mulvey.com>
Subject : Re: Morse Code blues

rich@mulvey.com writes:

> [the guy on the other end of the QSO was sending REAL slow...] Of
>course, every time he tried to turn the conversation around, he sent
>his call again at 13wpm. :-)

I've done that before... once I knew the other guy had my call down
right (i.e. he actually managed to send KC4WZK DE whatever), I'd speed
way up for the ID before turning it around. Most of the time, they
catch on to what I'm doing and respond in kind. Get the ID'ing over
with and get on with the QSO, that's what I say.

Slow CW is really fun when your call is KC4WZK and your QTH is Dawsonville,
GA. :-) You can bet I only send THAT once when we're 599. :-)

Instantly qualifying for RCC on any 5 wpm QSO, I am --

--
Larry Kollar, KC4WZK | I like CW, but that doesn't mean I think every ham
lkollar@nyx.cs.du.edu | should have to learn it.

"On the Internet, nobody knows you're a dog."

End of Info-Hams Digest V93 #1496
